



Buckeye/Sun Valley Area Drainage Master Study

Flood Control District of Maricopa County
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Maricopa County
Board of Supervisors
Max Wilson - District 4

Project Update

The District is preparing an Area Drainage Master Study (ADMS) to identify known and potential flooding and erosion hazards in the Buckeye/Sun Valley area. The study is a joint effort between the District, the Town of Buckeye and a variety of key stakeholders.

The study began in June 2003 and all analyses and data collection is expected to be completed in December 2004. The study team has researched all known flooding hazards in the project area through verbal and written contact with various Town, County and State agencies as well as an appeal to citizens in the area for any information or photos relevant to known flooding issues.

After analyzing the data, it was determined that the majority of existing flooding problems are located within downtown Buckeye. Other flooding and drainage problems were identified in areas with new development as well as

upstream of irrigation canals and the railroad. As a result of this information, the study team focused on developing more realistic floodplain analyses in areas transitioning from agricultural to suburban residential land use.

Additional project efforts include floodplain/floodway delineations of approximately 12.5 miles of tributaries to the Hassayampa River and coordination with other District projects in the study area such as the Buckeye FRS #1 Rehabilitation Project (see next page).

Upon completion of the ADMS, the District will begin the implementation of the second phase of the project. In phase two, the project team will utilize all of the data collected during the ADMS to formulate both structural and non-structural alternative solutions to reduce flooding hazards and to develop an Area Drainage Master Plan.

Floodplain/Floodway Delineations

Floodplain/floodway delineations identify special hazard areas that are subject to inundation by a 100-year flood (1 percent chance of occurring each year). A floodplain is the area adjoining a watercourse that may be covered by water during a flood. Storm runoff and flood events may cause alterations in the floodplain in certain areas. Delineations allow for sound floodplain management so that future development will not impede, divert or retard the movement of floodwaters. The District performs detailed analysis to identify flood hazard zones.

As part of the Buckeye/Sun Valley ADMS, the District performed delineations of approximately 12.5 miles of tributaries to the Hassayampa River. The delineation study area is bounded by the Hassayampa River on the west, Johnson Road on the east, Interstate 10 on the north, and the BNSF Railroad on the south (see map on next page). There are three tributaries for which floodplains have been identified. These washes typically flow from north to southwest, ending at the Hassayampa

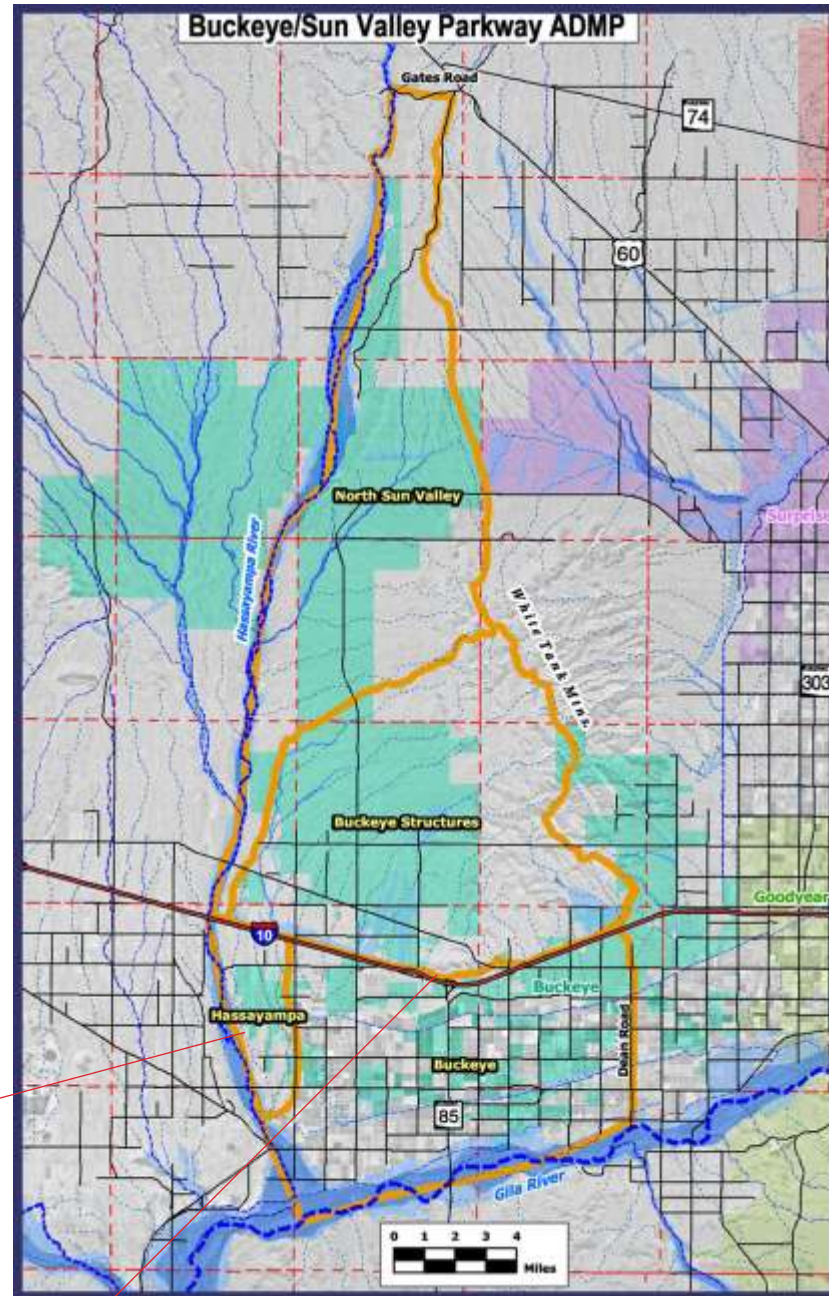
River. On average, the floodplains are 200 to 300 feet wide with water velocities ranging from three to five feet per second.

After the delineations are submitted to the Federal Emergency Management Agency (FEMA), the approval process can take six to nine months or longer. Homeowners and landowners will not be directly affected by the delineations until it is adopted. However, the delineation maps will be used as best technical information to guide adjacent development.

The District is also preparing an assessment of erosion hazards associated with the delineated floodplains. Almost 22 miles of watercourses within the study area with either existing or proposed flood hazard zones are being evaluated to determine the potential risk of damages resulting from erosion of stream banks during storm events. The District is preparing maps showing proposed setbacks needed to prevent erosion damages based on specific hydraulic analyses and field investigations, and identifying those streams where more detailed analyses are required.

The watershed for the study area is generally bounded by Gates Road to the north, the White Tanks Mountains and the Dean Road alignment to the east, the Gila River to the south, and the Hassayampa River to the west.

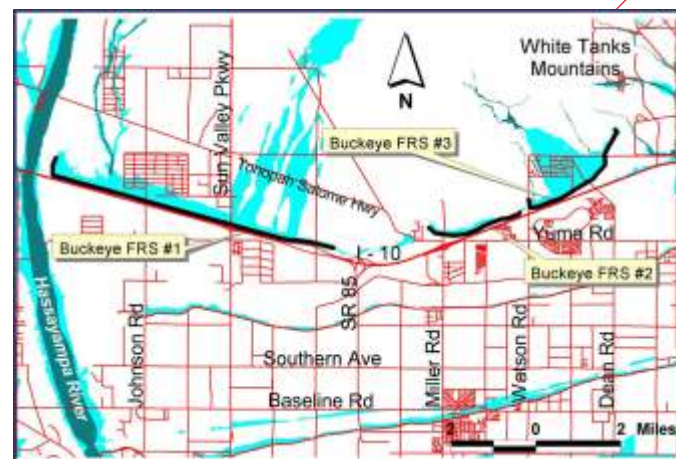
The project area has been divided into four geographic regions in order to facilitate technical analyses and public and stakeholder involvement.



Study Area



Proposed Floodplain/Floodway Delineations



Buckeye FRS #1 Rehabilitation Project

Public Meeting

Wednesday, December 1, 2004
Time: 6:00 - 8:00 p.m.
Buckeye Community Center
201 E Centre Buckeye, AZ

A brief presentation will be given at 6:15 p.m. Following the presentation, District staff as well as members of the project team will be available to answer your questions and provide specific information on the preliminary floodplain delineation results. Team members for the Buckeye FRS #1 Rehabilitation Project will also be available to answer questions.

Buckeye /Sun Valley ADMS Contact

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Buckeye FRS No. 1 Rehabilitation Project

The Buckeye Flood Retarding Structures (FRS) No. 1, 2, and 3, located just north of Interstate 10, are prominent drainage features within the Buckeye/Sun Valley ADMS study area. This series of three flood control dams and connecting flood channels was built in the early '70s by the Soil Conservation Service (now the Natural Resources Conservation Service, NRCS) under local sponsorship by the District. Currently, the District operates and maintains the Buckeye Structures. These structures have provided valuable flood protection for Interstate 10, other infrastructure, the Town of Buckeye, and surrounding farming operations for the past 30 years by intercepting storm runoff from the White Tank Mountains.

The three Buckeye Structures collect stormwater runoff from the north and work in a series to move floodwaters from the easternmost dam, No. 3, westward to No. 2 and finally to No. 1 where the water is released into the adjacent Hassayampa River.

The District regularly inspects, monitors, and maintains the Buckeye Structures as part of its Dam Safety Program. As the structures age, maintenance needs have increased. Recently, deficiencies were identified in Buckeye FRS No. 1, and the District has begun a planning and pre-design study to identify, evaluate, and select a feasible alternative to rehabilitate or replace the dam so that the useful life of the project may be extended to insure that downstream properties continue to receive valuable flood protection. The District has applied for federal cost-share assistance from the NRCS to help fund these rehabilitation efforts.

Project tasks will include engineering studies, incorporation of multi-use and landscape aesthetics, development of alternatives, public meetings, and alternative selection. Additional technical services may include biological, archaeological, and other

environmental studies. Alternatives to be considered may include structural repairs, replacement with another type of flood control system such as detention basins and drainage channels, or combinations of repair and rehabilitation. The District is very interested in coordinating this project with the Buckeye/Sun Valley ADMS and, where possible, incorporating other efforts such as the proposed Maricopa Regional Trail Phase 3 Master Plan. Additionally, the District is looking for interested stakeholders to partner with in the pursuance of federal funds to provide a separate multi-use recreational component in the rehabilitation project.

It is anticipated that two public meetings will be held in 2005-2006 during this initial phase to inform the public of our progress and solicit input.

Project Schedule

Phase I - Planning & Pre-Design	Fall 2004 to 2006
Phase II - Final Design	2006 to 2007
Phase III - Construction	2007 to 2010

The estimated schedule for design and construction is contingent upon approval of federal funding assistance.

Project Contacts

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For more information on this project, visit www.fcd.maricopa.gov/Projects/BuckeyeFRS1Rehabilitation